

REMARKS:

Claims 1-15 are pending in this application. By this amendment, claims 1-15 are canceled, and claims 16-24 are newly presented. Applicants request reconsideration and allowance of this application in view of the above amendment and the following remarks.

Remarks in Previous Response

Applicants' remarks and arguments in the previous response were based on the wrong Dimberg reference. Accordingly, they were in error and should be ignored.

Response to Rejections as Might be Applied to New Claims

Claims 1-3, 5-7, and 10-15 are rejected under 35 U.S.C. § 102(b) as anticipated by Dimberg, U.S., 1,641,745. Claim 4 is rejected under 35 U.S.C. § 103 based on Dimberg in view of Doran, U.S. 2,347,034; claim 8 is rejected under 35 U.S.C. § 103 based on Dimberg in view of Gilson, U.S. 1,286,283; and claim 9 is rejected under 35 U.S.C. § 103 based on Dimberg in view of Gilson and further in view of Schenk, U.S. 2,633,776. To the extent claims 1-6 and 9-15 are canceled, the rejections are moot; to the extent new claims 16-24 present subject matter that is the same as or substantially similar to the concepts originally presented in claims 7 and 8, Applicants traverse the rejections *a priori* to the extent they might be applied to the new claims.

In particular, the new claims again generally express the concept that a stator or rotor component is made by moving a blade-bearing disc-shaped member or annular member axially toward a ring-shaped cover member. (As recited in the claims, a disc-shaped member (claims 16, 17, 20, and 21) has a hub with blades extending radially outwardly from it, whereas an annular member (claims 18, 19, 22, and 23) has an outer ring with blades extending radially inwardly from it.) The free ends of the blades and the corresponding inner surface (claims 16, 17, 20, and 21) or outer surface (claims 18, 19, 22, and 23) of the cover member are configured to make mating engagement, thereby forming a butt joint, when the disc-shaped or annular member and the cover member are so moved toward each other. Moreover, the free end surfaces of the blades and the inner or outer surface of the cover member, as the case may be, are configured to guide and limit such convergent movement of the parts and ensure secure

engagement between the parts when the stator or rotor component is so manufactured. Thus, to that end, the mating surfaces may be inclined (e.g., beveled), as recited in claims 16-19, or they may be convexly/concavely curved, as recited in claims 20-23.

Canceled claims 7 and 8 expressed this concept, although limited to (conically) inclined surfaces. With respect to claim 7, the Office Action asserts that Dimberg shows a ring member with an angled inner surface and blades with a corresponding angled shape, since “0 degrees and 90 degrees are angle[.]” Moreover, the Examiner asserts that “the ring member and the annular member are connected via relative axial movement. With respect to claim 8 (depending from claim 7), the Examiner further asserts that it would have been obvious to modify the Dimberg configuration to have conically angled surfaces “in order to provide a blade configuration having the desired air thrust produced due to the configuration of the blades.” To the extent such basis for rejection might be relied upon to reject the new claims, Applicants respectfully refute it on several grounds.

First, to the extent the Examiner relies on the fact that 0 degrees and 90 degrees (the angles shown in Dimberg) constitute angles, Applicants have obviated that basis for the rejection by specifying in claims 16-19 that the angle of inclination is an acute, non-zero angle. Support for that limitation is found in the exemplary angles set forth in the specification, e.g., at paragraph [0032]. With respect to claims 20-23, on the other hand, Dimberg clearly does not disclose or suggest providing blades and cover rings with mating convexly/concavely curved surfaces.

Second, to the extent the Examiner asserts that the Dimberg ring element 3 and annular member are connected via relative axial movement, Applicants disagree. All Dimberg discloses in this regard is as follows:

Ordinarily one of the connecting strips is secured to the adjacent ends of the blades and forms a shroud.

(Page 1, lines 14-16.)

The turbine blading to the manufacture of which the present improved method is especially applicable, is ordinarily formed in segments each comprising a plurality of radiating blades 2 having a foundation segment 5 rigidly attached to the root ends thereof and having a shroud strip 3 of channel shaped cross section attached to and uniting the opposite ends thereof.

(Page 1, lines 92-100.)

When utilizing the prior method of assembling these segments, the blades 2 are first assembled in a spacing and angling jig and a shroud segment strip 3 is clamped against the end surfaces of the blades 2. With a shroud strip 3 thus held in position, the elements are ready for brazing.

(Page 1, line 105 through page 2, line 3.)

In accordance with the improved method of applying the shroud strips 3 and the bracing or lacing strips 4, the connecting strips are first coated either locally or completely, with solder. The coated shroud strip 3 is then temporarily positioned relatively to the blades 2 with the aid of a spacing and angling jig, in the same manner as in the prior art. After a shroud strip 3 has been clamped against the ends of a plurality of properly spaced and angled blades 2, the shroud 3 and the adjacent ends of the blades 2 are uniformly heated to cause the coating of solder to fuse with the metal along the entire bladed ends and to permanently unite the segment 3 with the blades 2.

(Page 2, lines 27-42.)

Notably, nothing in that disclosure says anything about moving a ring member axially toward a bladed disc-shaped or annular member. Rather, the Dimberg disclosure could just as easily be referring to a method of assembly in which the shroud is attached by wrapping it peripherally around the ends of the blades, using the spacing and angling jig to do so. In fact, Dimberg's reference to the shroud strip strongly suggests that that is precisely the manufacturing method he contemplated. Thus, Applicants traverse the rejection for this second reason as well.

Third, to the extent the Examiner rejected claim 8 based on combination obviousness, Applicants submit the Examiner failed to set forth a *prima facie* case of obviousness. In

particular, as quoted above, the Examiner asserts that it would have been obvious to provide Dimberg with conical mating surfaces, in light of Gilson, “to provide a blade configuration having the desired air thrust produced due to the configuration of the blades.” With all due respect, Applicants submit that that amounts to nothing more than a statement that one would have modified Dimberg because of the tautology that one gets what one gets with the configuration shown in Gilson. Such logic, Applicants submit, is illusory and does not provide basis whatsoever for combining the two references.

Moreover, Applicants posit that the proffered combination of references could, just as easily, have led one having skill in the art to assemble a stator or rotor component as shown in Dimberg using the method disclosed in Gilson. In that case, one would have fabricated the outer cover or connecting ring by forming ring segments on the ends of the blades; folding over the ring elements; and interlocking the ring segments to form a continuous ring while assembling the blades into a supporting hub. Such an approach to stator/rotor component construction would be antithetical to that disclosed and claimed in the present application. Accordingly, to the extent the combination of references supporting the rejection of claim 8 might be applied against the newly presented claims, Applicants respectfully traverse it.

In view of the foregoing, Applicants submit that new claims 16-24 are in condition for allowance, and timely Notice to that effect is respectfully requested.

The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 14-1437, referencing Attorney Docket No.: 7589.176.PCUS00.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner may directly contact the undersigned by phone to further the discussion.

Novak, Druce & Quigg, LLP
1000 Louisiana, Suite 5300
Houston, Texas 77002
(713) 571-3400
(713) 456-2836 (fax)
tracy.druce@novakdruce.com

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Tracy Druce".

Tracy W. Druce, Esq.
Reg. No. 35,493